

B. P. KENYON.
FURNITURE CASTER.
APPLICATION FILED JAN. 15, 1910.

972,871.

Patented Oct. 18, 1910.

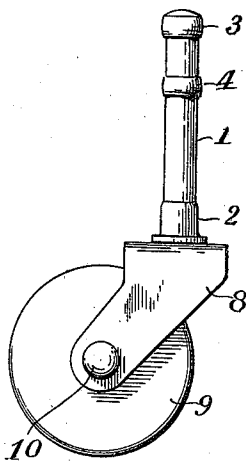
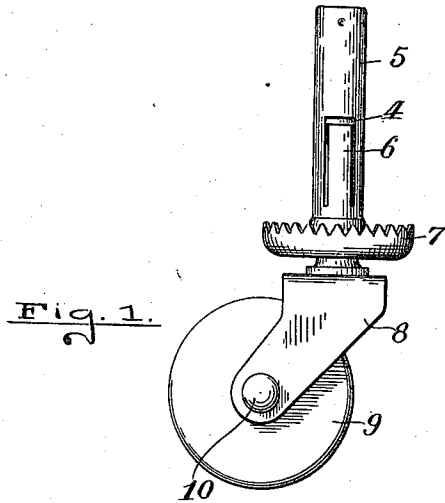


Fig. 2.

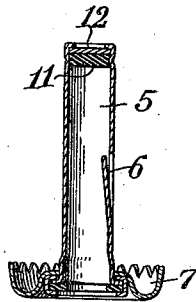


Fig. 3.

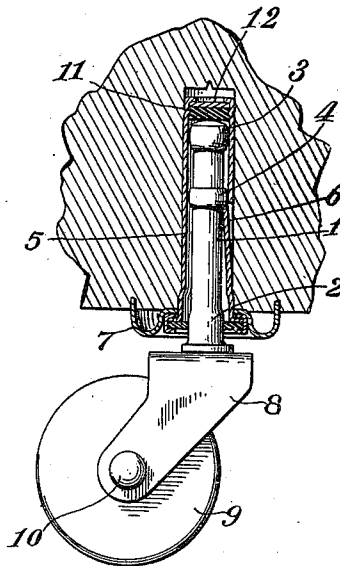


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

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FURNITURE-CASTER.

972,871.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BERTRAND P. KENYON, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Furniture-Casters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in furniture casters, and it has for its purpose, the increasing of the relative strength of the several parts, the reduction of friction between the co-acting parts, the improvement of the construction and operation of the pintle retaining device, and to provide the same with various new and useful features hereinafter more fully described and particularly pointed out in the claims.

Heretofore it has been the practice to provide a socket open at the top and usually slotted or divided and turned inward to form a pintle retaining device, an illustration of which is to be found in a patent issued to me October 31, 1899, No. 636,148 for improvements in furniture casters. In the device disclosed in this patent, I have provided a pintle similar to the one shown in this present application, except as to the location of the intermediate enlargement of the pintle. In my previous device which was a very superior structure as compared with the known art at the time that patent was issued, I find that the leverage on the bearings of the pintle is so great when the caster is applied to a heavy piece of furniture, that the socket is incapable of sustaining the pressure without practically destroying it. The pintle retaining devices become after a short use, inoperative. This is due to the fact that the strain comes on the pintle at the point where it engages the horn and on the center enlargement of the pintle. The relative offset of the wheel of the caster tends to increase this leverage very materially, and thus renders the device unsatisfactory in operation when applied to heavy furniture. In my present invention, I have remedied this defect by making the bearing points of the pintle at the ends of the same and applying the pintle retaining device intermediate the ends. Thus in the present device, the decrease of leverage on the pintle

by locating the journals as far apart as the length of the pintle will allow, supplying a substantially rigid tubular socket opposite the bearings of the pintle, and applying the pintle retaining device intermediate the bearing points of the pintle, as will more fully appear by reference to the accompanying drawings, in which:

Figure 1 represents a side elevation of my improved furniture caster; Fig. 2 the same with the caster socket removed; Fig. 3 a vertical section of the caster socket; Fig. 4 the caster socket as in Fig. 3 and the caster and pintle as in Fig. 2 shown in operative position.

Like numbers refer to like parts in all of the figures.

1 represents the pintle having an enlargement 2 near the lower end and another enlargement 3 at the upper end to form journals at its respective ends.

4 is a circumferential enlargement intermediate the ends and projecting sufficient to engage the upper end of a spring tongue 6 bent inward from the side of the socket 5. 7 is the usual form of track plate attached to the lower end of the socket 5.

8 a yoke fixed on the lower end of the pintle in which is journaled the wheel 9 by means of a pin or rivet 10 extending through the yoke and through the said wheel.

To carry the load, a thrust bearing 11 is inserted in the top of the socket and engaged by the upper end of the pintle 1. This bearing is preferably of fiber, and held in place by a sheet metal closure 12 above the same and secured in the upper end of the socket. The bearings 2 and 3 being separated to the full limit of the length of the pintle, materially reduces the lateral leverage of the pintle. The tendency to lateral movement of the pintle being in opposite direction at the respective ends of the same, there is little or no tendency to move laterally at the middle, consequently the spring being located near the middle of the pintle is not pressed outward and put out of action, as is the case with springs or other retainers of like nature which engage the pintle near its end.

I am aware that heretofore a spring tongue in the side of the socket has been used to engage the head or enlargement at the upper end of the pintle. This construction has the defect of the construction here-

tofore referred to, and this defect is adequately remedied by the construction herein shown.

What I claim is:—

5 1. A furniture caster, comprising a socket having journal bearings at its respective ends, a pintle having journals at its respective ends rotative in said bearings, and pintle retaining means located between the said
10 journal bearings and protected thereby from lateral pressure of the pintle.

2. A furniture caster, comprising a pintle having journals at its respective ends and an enlargement near the middle; and a socket
15 having a spring tongue near the middle adapted to engage said enlargement and retain the pintle in said socket.

3. A furniture caster, comprising a pintle having enlargements at its respective ends
20 forming journals and a circumferential enlargement near the middle; and a sheet

metal socket rigidly surrounding the respective ends of the pintle and having a flexible tongue near the middle bent inward to engage the circumferential enlargement
25 and retain the pintle in the socket.

4. A furniture caster, comprising a pintle having a circumferential enlargement at each end and near the middle, a socket of sheet metal rigidly surrounding the pintle
30 at the ends and having a spring tongue near the middle to engage the middle enlargement of the pintle, a closure in the upper end of the socket, and a thrust bearing in the upper end of the socket engaged by the
35 end of the pintle.

In testimony whereof I affix my signature in presence of two witnesses.

BERTRAND P. KENYON.

Witnesses:

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